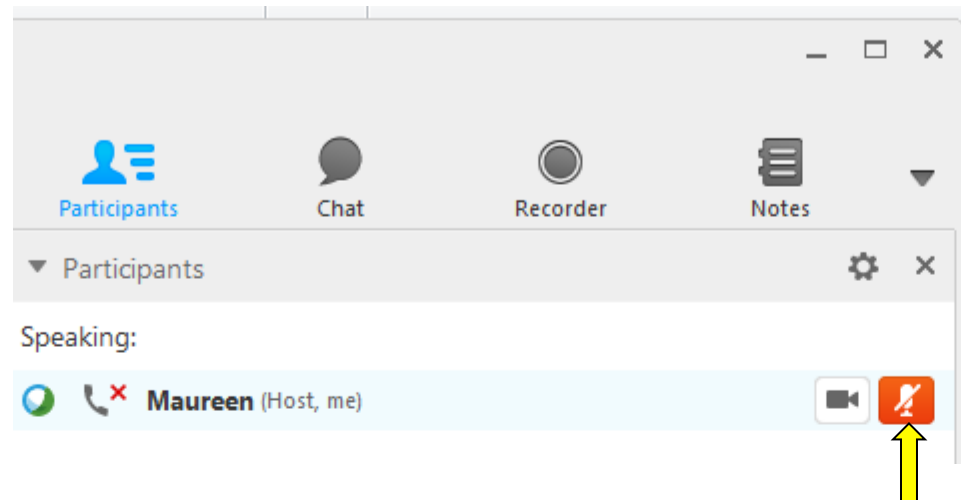# NIDA Strategic Planning Complex Patients Workgroup
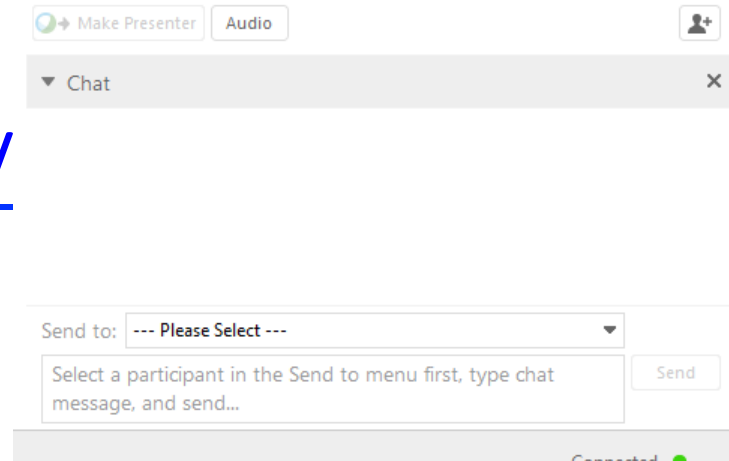
April 9, 2015

Logistics

- Workgroup members:
  - Please dial in through the phone instead of using your computer speakers to improve the quality of the audio.
  - We will mute participants as necessary to control noise. Please unmute to speak.

Logistics

- Non-workgroup members should remain muted until the public comment period
  - If you have a comment or question before then please feel free to enter it into the chat box
- The webinar will be recorded
- There is a note taker on the call and summaries will be posed on http://www.drugabuse.gov/strategic-plan

Workgroup Members

External Representatives

- Marilyn Carroll – University of Minnesota
- Joseph Guydish – UCSF
- Jenae Neiderhiser – George Washington University
- Connie Weisner – Kaiser Permanente Northern California
- Kathleen Brady – Medical University of South Carolina
- Lisa Metsch – Columbia University Mailman School of Public Health
- John Rotrosen – NYU
- Edward Nunes, Jr. – Columbia University College of Physicians and Surgeons

Workgroup Members

NIDA Representatives

- **Meyer Glantz**
- **David Liu**
- Geetha Subramaniam
- Karran Phillips
- Will Aklin
- Tanya Ramey
- Susan Volman
- Dave Thomas
- Jacques Normand

NIDA Strategic Planning

- RFI was released in December to solicit feedback from the field on NIDA's draft strategic priorities:
  - Basic Neuroscience: Improve our understanding of the basic science of drug use, addiction, vulnerability to addiction, and recovery
  - Clinical and Translational Science: Support the development of new and better interventions and treatments that incorporate the diverse needs of individuals with Substance Use Disorders (SUDs)
  - Public Health: Increase the public health impact of NIDA research and programs
  - Science Infrastructure: Enhance the national research infrastructure to support advancements in science
- **Comment period closed January 30th**
  http://grants.nih.gov/grants/guide/notice-files/NOT-DA-15-005.html

Updating the NIDA Strategic Plan

- Next steps:
  - Bold goals challenge: Will award up to $10k in prizes for top ideas
  - Priority Area Workgroups will be formed to gather input from internal and external experts on cross divisional topics to develop strategic priorities for:
    - Big Data
    - Gene x Environment x Development interactions
    - Complex patients (multiple comorbidities)
  - Division strategic plans currently being developed

Timeline

- RFI – Closed Jan 30, 2015
  - Review comments – By Mar 6, 2015
- Priority Area Workgroups – February through July
- Bold Goals Challenge
  - Winner selection – By August
- Draft Strategic Plan out for public comment– Summer 2015
- Final Strategic Plan – Fall 2015

Workgroup Charge

- **Complex Patients: How to foster research to address complex patients (i.e. those with multiple chronic conditions) and populations (i.e. adolescents, geriatric)**
- Addressing neurological, cognitive, and behavioral processes across the trajectory of addiction, recovery and relapse
- Phenotypic characterization of patients

Workgroup Charge

– The workgroup should also address these cross cutting themes as appropriate

- Training needs (training of clinicians was a common theme in RFI comments)
- Addressing sex and gender issues
- How to leverage technology advances
- Leveraging innovations from other fields

Workgroup Charge

- To develop recommendations on strategic priorities for fostering research to address complex patients.

- <u>Deliverable:</u> 3-5 page summary of recommended priorities and related action items for NIDA to improve research related to complex patients in the next 5 years

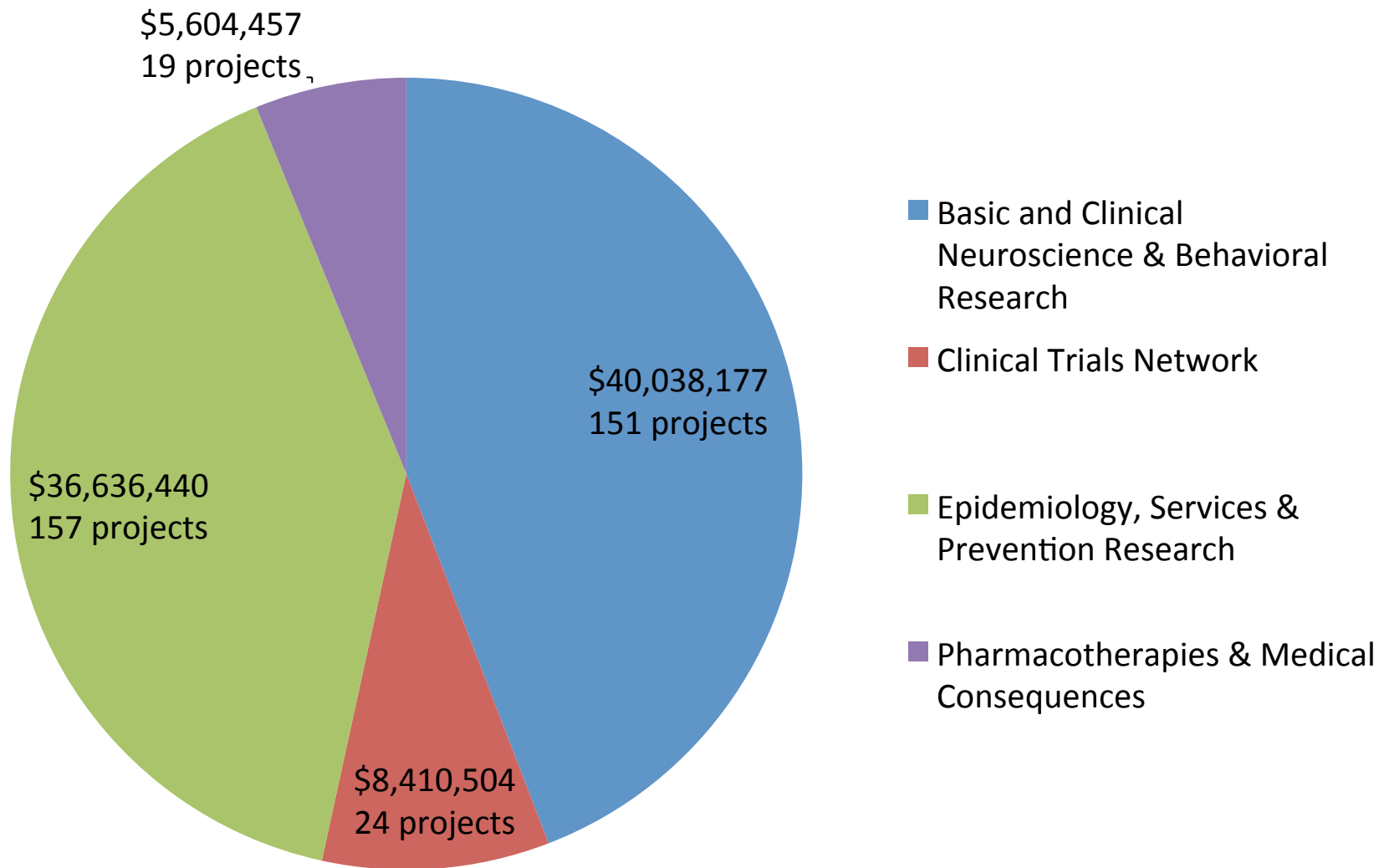- To be completed **by Friday June 26th**

Workgroup Charge

- Recommendations should focus on strategic goals within the area of Complex Patients and priority objectives for addressing those goals over the next 5 years
- Example (just illustrative):
  - Goal: Leveraging health reform associated changes to address patients with multiple co-morbidities
  - Objectives:
    - Foster research on impact of new coordinated care models (ACOs, PCMHs) on SUD treatment
    - Support more pragmatic trials on patients with multiple comorbidities
    - Foster use of common data standards related to SUD in clinical records

Topics from RFI

- Pediatric patients
  - neonatal
  - adolescents
- Geriatric patients
- Pregnant and post-partum substance use
- Multiple chronic conditions
  - Mental illness
  - Physical illness
- Adherence issues
- Leveraging health reform
  - SUD workforce issues
  - Integrated care
- Non treatment seekers
- Phenotypic characterization
- Recovery issues
- Addressing trauma
- Role of families in treatment and recovery
- Pragmatic trials

NIDA Comorbidity (Active Grants)
$91M as of April 7, 2015

$5,604,457
19 projects

$40,038,177
151 projects

$36,636,440
157 projects

$8,410,504
24 projects

- Basic and Clinical Neuroscience & Behavioral Research
- Clinical Trials Network
- Epidemiology, Services & Prevention Research
- Pharmacotherapies & Medical Consequences

Basic and Clinical Neuroscience & Behavioral Research

- Interactions of molecular pathways in SUD and comorbid conditions

- Neural activity patterns associated with co-occurrence of SUD and mental disease/HIV (for PTSD and smoking, trauma and SUD, mental illness and SUD, pain and opioid use disorder

- Behavioral interventions for PTSD and smoking, trauma and SUD, mental illness and SUD, pain and opioid use disorder

Clinical Trials Network

- CTN comprises 13 regional nodes, a Clinical Coordinating Center, and two Data and Statistical Centers to test therapies and facilitate integration of evidence-based practices into treatment

Epidemiology, Services & Prevention Research

- Statistical modeling of genetic, environmental, and social factors in the development of SUD
- Modeling of gene x environment interactions in SUD, and of interactions of psychiatric symptoms and SUD
- Descriptive, longitudinal studies of early risk factors on drug use
- Analysis of factors that contribute to transmission of IDU-associated infection

Pharmacotherapies and Medical Consequences

CENTERS FOR AIDS RESEARCH

- Centers for AIDS Research, co-funded by nine NIH Institutes
- Pharmacotherapies for cocaine, tobacco, polysubstance use

Discussion of specific gaps/priorities

Complexity and Comorbidities

- In order to efficiently prevent and treat substance abuse, we need to better understand the underlying complex interaction of factors that influence drug use initiation and progression over time. These range from individual patient characteristics such as psychiatric or medical comorbidity, SES, through network factors such as social and drug networks, and system level factors such as access to health care, reimbursement and structural factors such as stable housing, incarceration, etc.

- Research cannot address substance abuse just as a single disease; it must also address many co-morbidities that occur in conjunction with substance use disorders, e.g., infectious diseases (e.g., HIV, sexually transmitted infections (STIs), endocarditis, HCV, TB), neurological and cognitive impairments/deficits, psychiatric disorders, cardiovascular disease, and accelerated aging.

Complexity and Comorbidities

- Research is needed to develop prevention and treatment modalities that enable tailoring of intervention intensity and emphasis to different patient populations and settings.
  - Intersecting biological, social, and environmental factors that influence substance use initiation and progression need to be addressed simultaneously.
- We need to determine how best to aggregate and harmonize big data across large studies to understand and address comorbidity, in collaboration with CRAN partners (NIDA, NIAAA, NCI and perhaps NIMH).
- Research may be needed to determine the whether current interventions effectively address the complex needs of SUD patients, and whether treatment providers have adequate training and qualifications to provide effective diagnosis and treatment for SUD patients. Research to further develop treatments for complex patients, to determine the most effective role for self-help and support groups, and to foster integrated services for complex patients is also needed.

Phenotypic Characterization of Patients

- A concerted research effort is needed to develop, for research purposes, new ways of characterizing differential trajectories of substance abuse, addiction, and recovery based on behavioral processes and cognitive and neurobiological measures.

- One approach to the above is to model and/or build upon the NIMH RDoC framework, a plan that has been proposed for alcohol use disorder as AARDoC (Alcohol Addiction RDoC: Litten et al., 2015). An element of this approach would be to pilot cross-diagnostic assessment and characterization of participants in SUD clinical trials.

- Broadening empirically based characterizations of SUD patients to include the commonality of co-occurring conditions and other complexities and their implications is needed.

Phenotypic Characterization of Patients

- Research to better characterize non-treatment populations of individuals with significant and problematic substance use behavior and to increase their participation in treatment is needed as well as research to better understand non-treatment SUD populations patterns of function and their substance use trajectories.

- Research is needed to explore differing models of addiction and substance use disorders and to consider which are most useful in different research and intervention circumstances.

Specific Areas of Complexity/ Comorbidity

- Cognitive functions are directly involved in decision-making, response inhibition, planning and memory. They also are indirectly involved in successful encoding and retrieval of information, attentional control, affective responsiveness, and self-awareness. Because many treatments for substance abuse focus on changing behavior, developing skills to prevent relapse and promotion of psychosocial adaptation—activities that clearly require cognitive processing—research is needed to develop effective methods for moderating and/or reversing an identified cognitive deficit (e.g., deficits in impulsivity, learning, inhibitory control, or decision making) in a drug-dependent patient population, which could potentially improve one or more drug abuse treatment outcomes.
- Research is needed to examine the intersection of traumatic brain injury, substance use and abuse with or without pain.